

REMARKS/ARGUMENTS

Applicant would like to thank the Examiner for the careful consideration given the present application. The application has been carefully reviewed in light of the Office action, and amended as necessary to more clearly and particularly describe the subject matter which applicant regards as the invention.

Applicant would especially like to thank the Examiner initiating a telephone interview on April 16, 2007 to discuss possible claim amendments that would place the application in condition for allowance. Applicant would also like to thank the Examiner for the additional telephone interviews that transpired during the week of April 16 – April 20, 2007. Specifically, the Examiner suggested that the independent claims 1, 16, and 17 be amended to include language indicating that at least a portion of the interface device is accessible and protrudes from the face side of the digital watch. Thus, independent claims 1, 16, and 17 have been amended in accordance with the Examiner's suggestions. Accordingly, it is respectfully submitted that claims 1-17 are now in condition for allowance.

Claim 15 has been amended to correct a typographical error.

Claims 1-15 were rejected under 35 U.S.C. 103(a) as being unpatentable over Will (US 5477508) in view of Moriya (US 4115993). Currently amended claim 1 states, in pertinent part, "Digital watch, comprising a face side having a digital display... said interface device having a lateral surface, at least one sector of the lateral surface being accessible and protruding from said face side for allowing the rotation of the interface device." Neither Will nor Moriya, alone or in combination, disclose, teach, or suggest such structure.

In distinction, Will describes a watch having an interface device that projects from the right side of the watch cast (40). See column 7, lines 41-45. The interface device is sensitive to rotation around its axis, and to pressure orthogonal to its axis. Thus, the pressure sensitivity is radial, and not axial as in the interface device of the instant application. Thus, because of the normal ergonomic limitations of a watch, the interface device of Will is required to be oriented with a rotation axis orthogonal to the watch face,

and the pressure sensor directed outwards and laterally from the middle of the watch (i.e., relative to the "thickness" dimension of the watch). Further, the thumbwheel of Will is necessarily very thin, because it has to fit within the (relatively thin) thickness of the watch case. As such, the thumbwheel will be harder to manipulate than the interface device of the instant application.

In further distinction, Moriya describes a crown (9) protruding from the right-hand side of the watch. See Figure 1. The crown (9) is also sensitive to axial pressure. According to the reference, the crown is used to activate certain functions of the watch. However, the crown of Moriya requires at least a thumb and forefinger to operate, is even smaller than the thumbwheel of Will, and is consequently even more cumbersome to use. Thus, because of its small size, manipulation of the crown is awkward, especially in rotation, and consequently can only be practically used for seldom-used functions, such as setting of the precise time.

Conversely, the interface device of the instant application includes at least a portion that is accessible and protrudes from said face side of the digital watch for allowing the rotation of the interface device to thereby allow greater ease of manipulation. See the examples shown in Figures 2a – 3 of the instant application. Additionally, the interface device is sensitive to rotation around its axis, and to pressure along the direction of the same axis. Because of these features, the wristwatch of the instant application presents a user interface that is unique, but is also intuitively simple and natural to use. The interface is also highly ergonomic because it can be used with a single fingertip, without requiring the user to pinch the interface device between a thumb and a forefinger (e.g., such as with a crown as described in Moriya). As previously described, this is impossible for the watch of Will, in which the input device is confined to the right-hand side of the watch and cannot be accessible from the face side of the watch.

Additionally, the co-axiality of rotation and pressure of the interface device (i.e., the interface device being sensitive to rotation around its axis and to pressure along the direction of the axis) allows a larger interaction surface for the interface device. As

such, interaction with the interface device is simpler, for example, for users with large fingers or users who are wearing gloves or the like.

Moreover, there appears to be no suggestion or motivation, express or implied, for one of ordinary skill in the art at the time the invention was made to combine the teachings of Will and Moriya. Respectfully, the applicant submits that the Examiner's proposal that the use of the crown of Moriya would be more common than the thumbwheel of Will is in error. For example, while the thumbwheel of Will is used to navigate a series of hierarchical menus, the crown of Moriya is very ill-suited for this task because of its small size and difficult manipulation. In another example, it would not be obvious to provide the wheel of Will with the ability to sense axial pressure, because the location of the wheel in the watch would not allow an easy manipulation. Thus, one of ordinary skill in the art at the time the invention was made would not have considered modifying the watch of Will by replacing the thumbwheel with a crown similar to that of Moriya.

Therefore, neither Will nor Moriya, alone or in combination, disclose, teach, or suggest every limitation required by previously presented claim 1, notably "said interface device having a lateral surface, at least one sector of the lateral surface being accessible and protruding from said face side for allowing the rotation of the interface device." Accordingly, it is respectfully submitted that claim 1 is now in condition for allowance. Withdrawal of the rejection is respectfully requested.

Additionally, because claims 2-15 depend directly or indirectly from claim 1, it is respectfully submitted that claims 2-15 are also now in condition for allowance.

Claims 16 and 17 were first added in the Amendment "B" of January 26, 2007, and are now currently amended. Claim 16 is similar to cancelled claim 3, though written in independent form incorporating all of the limitations of the base claim. Claims 16 and 17 state, in pertinent part, "Digital watch, comprising a face side having a digital display... said roller having at least one sector of its lateral surface accessible and protruding from said face side for allowing the rotation around the axis of the roller to be communicated with a finger tip." Neither Will nor Moriya, alone or in combination, disclose, teach, or suggest such structure.

Specifically, both of Will and Moriya describe input devices that are fastened to the right-hand middle side of the corresponding watches (i.e., along the "thickness" dimension), and do not protrude from the face side. Because of this, the input roller is easier to manipulate than those described in Will and Moriya. Further, the crown of Moriya does not allow communication of a rotation with a finger tip. Instead, the crown of Moriya must be pinched between the thumb and finger to for rotation thereof. Further still, there appears to be no suggestion or motivation, express or implied, for one of ordinary skill in the art at the time the invention was made, to have fastened the input device anywhere other than to the middle of the watch. Indeed, neither Will nor Moriya describe any alternative mounting locations.

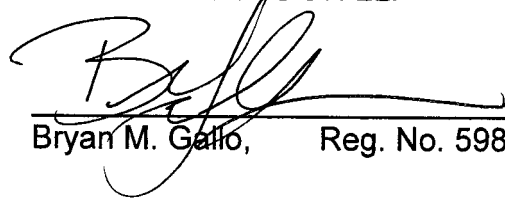
Claim 17 is similar to claim 16, but adds additional language further differentiating the instant application from the cited references. Specifically, claim 17 states "wherein said roller is fastened on the face side of said watch." As such, the watch of the instant application differs in that input roller is fastened on the face side of the watch. Accordingly, for reasons similar to those discussed above regarding claims 1-15, and for those additional reasons discussed above regarding claims 16 and 17, it is respectfully submitted that both of claims 16 and 17 are now in condition for allowance, and notice to that end is respectfully requested.

In light of the foregoing, it is respectfully submitted that the present application is in a condition for allowance and notice to that effect is hereby requested. If it is determined that the application is not in a condition for allowance, the Examiner is invited to initiate a telephone interview with the undersigned attorney to expedite prosecution of the present application.

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If there are any fees resulting from this communication, please charge same to our Deposit Account No. 16-0820, our Order No. 36240.

Respectfully submitted,
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